Gulf of Mexico Harmful Algal Bloom Bulletin

12 December 2005

NOAA Ocean Service

NOAA Satellites and Information Service

Last bulletin: December 8, 2005

Conditions Report

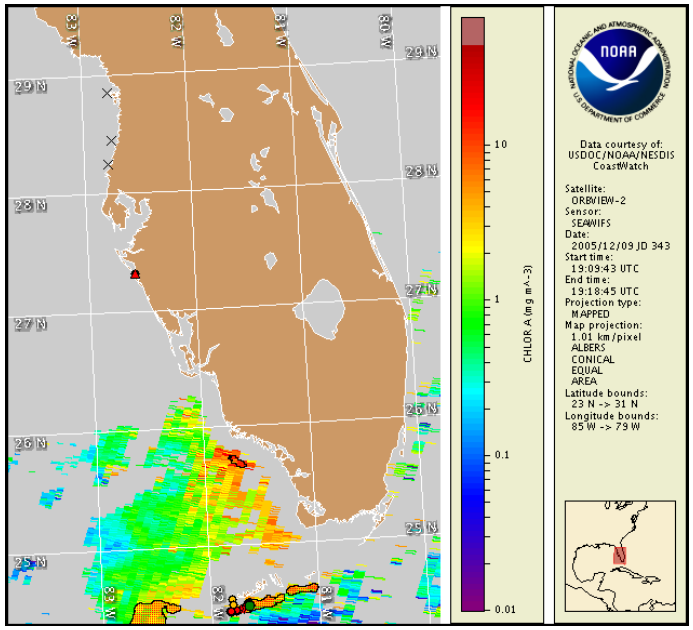
Harmful algal blooms have been identified in patches from Pinellas to Charlotte Counties, and in Dixie, Levy and Monroe Counties. The following patchy impacts are possible through Thursday: none to very low impacts in Pinellas County, Manatee, Charlotte, Dixie and Levy Counties. In Sarasota County, patchy low to moderate impacts are possible today and Thursday and very low impacts on possible on Tuesday and Wednesday. In Monroe County, patchy none to very low impacts are possible in the northern lower Keys through Thursday. Discolored water may be present.

Analysis

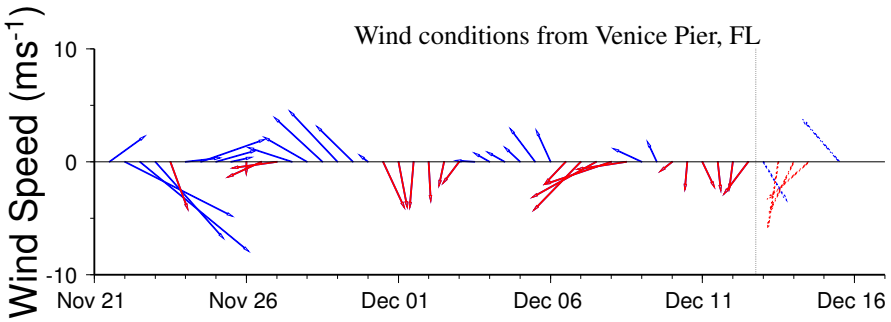
Cloudy imagery limits the analysis of the blooms located in Dixie and Levy Counties and from Pinellas to Charlotte Counties. The bloom offshore of Lee and Collier Counties continues to dissipate. An elevated chlorophyll hot spot (up to 17 μg/l) persists approximately 9 miles offshore of Marco Beach. The continuation of variable, upwelling favorable winds may increase bloom intensity offshore, maintain bloom location, and reduce impacts onshore through Thursday. The blooms may have moved slightly south since the last bulletin (12/8).

Cloudy imagery limits analysis of the bloom around the Keys. *K. brevis* concentrations range from not present to medium, with the highest concentrations primarily north of the Keys, from Marathon to Key West (12/6; MML). Based on imagery, the bloom appears to extend up to 9 miles south, from Key Colony Beach to Big Pine Key, and up to 12 miles south, from Big Pine Key to Key West. A single sample has confirmed a low concentration as far east as Plantation Key (12/8; MML). Imagery indicates the bloom may extend up to 50 miles west of Key West. If possible, sampling is recommended. Strong north to northeasterlies winds today and tomorrow may cause southwesterly transport and increase impacts on the northern shores. Strong easterlies on Wednesday and Thursday will continue westerly transport of the northern section of the bloom and likely maintain bloom location south of the Keys.

~Fenstermacher & Stolz



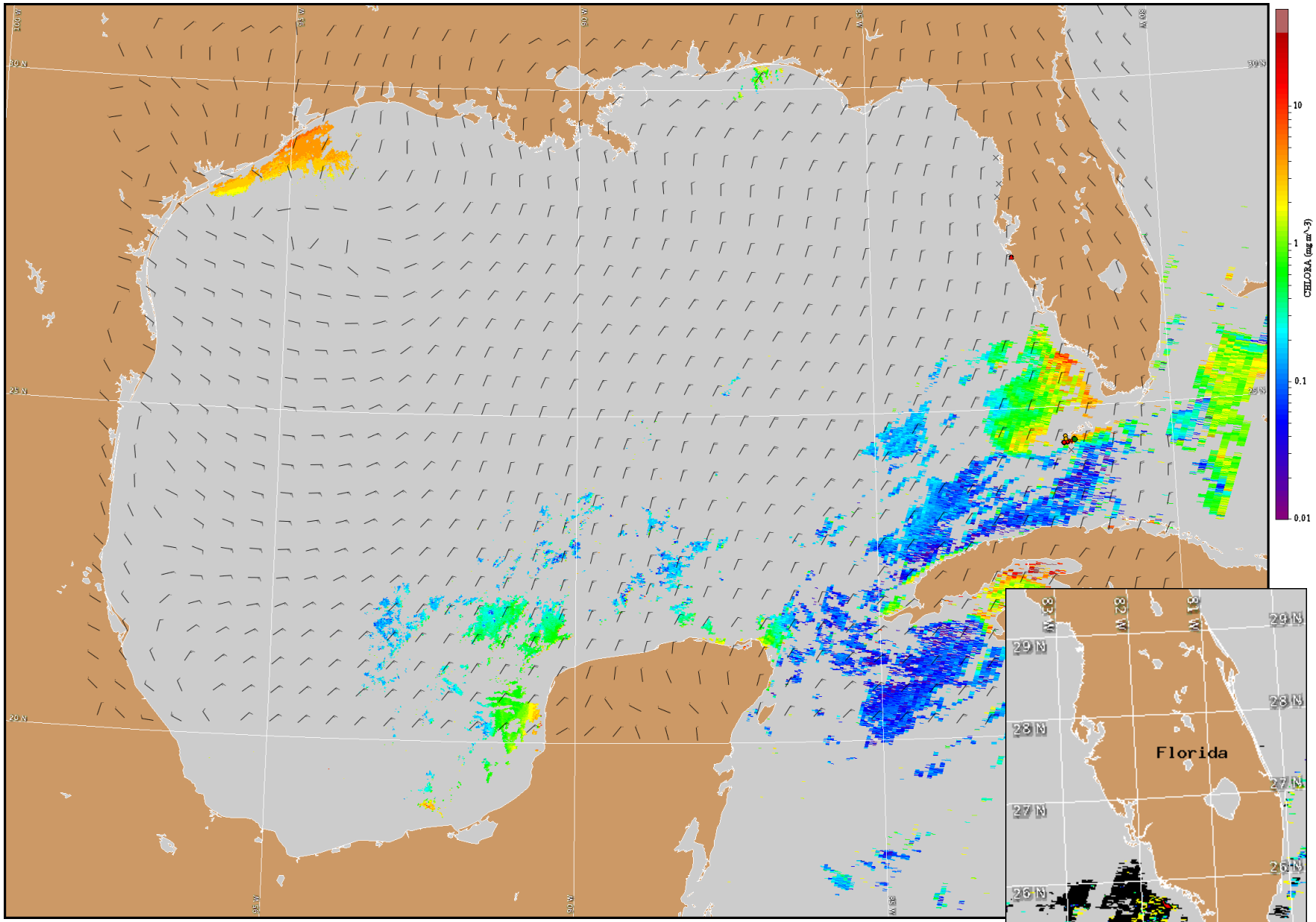
Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from December 2 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.

SW Florida: Northwesterlies clocking to northeasterlies through Tuesday (10 knots; 5 m/s). Easterlies on Wednesday followed by northwesterlies on Thursday (10-15 knots; 5-8 m/s).

Florida Keys: North to northeasterlies today followed by northeasterlies on Tuesday (15 knots; 8 m/s). Easterlies on Wednesday and Thursday (15 knots; 8 m/s).



Satellite chlorophyll image and forecast winds for December 13, 2005 12Z with cell concentration sampling data from December 2 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).

Verifi ed HAB areas shown in red. Other bloom areas shown in yellow (see p. 1 analysis for interpretation).

Wind conditions from Vaca Key, FL